

REMARKS

The Office action of January 5, 2004 has been received and its contents carefully noted.

Claims 18-36 are pending in the application. Claims 18 and 35 have been amended.

Claims 18, 22-30, and 32-34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hou et al. ("Hou") (U.S. Patent No. 6,324,184). Also, Claims 18-27, 30-31, and 35-36 stand rejected under § 103(a) as being unpatentable over Ghaibeh et al. ("Ghaibeh") (U.S. Patent No. 5,978,374). Also, Claims 28-29, and 32-34 stand rejected under § 103(a) as being unpatentable over Ghaibeh et al. ("Ghaibeh") (U.S. Patent No. 5,978,374) in view of Narasimhan et al. ("Narasimhan") (Data Link Control Protocols for Wireless ATM Access Channels"). Applicants respectfully traverse these rejections, and request allowance thereof in the continuation prosecution application for the following reasons.

**The Present Claims are Patentable Over the Cited References**

**Claims 18, 22-30, and 32-34 are not made obvious by Hou**

Claims 18, 22-30, and 32-34 were rejected under § 103(a) in view of Hou. Applicants strongly contend that Hou fails to disclose the features recited in these claims as amended such as receiving instantaneous bandwidth requirement information including requests for dynamic bandwidth allocation sent from said portion of

peripheral stations (PSS) at the Master Station, and distributing bandwidth not assigned with said static modality to said portion sending said requests in accordance with additional modalities using dynamic bandwidth allocation.

As admitted in the Office Action, Hou clearly does not disclose this patentably distinct feature of receiving instantaneous bandwidth requirement information including requests for dynamic bandwidth allocation sent from said portion of peripheral stations (PSS) at the Master Station, and distributing bandwidth not assigned with said static modality to said portion sending said requests in accordance with additional modalities using dynamic bandwidth allocation. As explicitly stated, Hou solely discloses a dynamic bandwidth allocation scheme that does not require involvement of the subscriber units (receiver stations). See col. 8, lines 29-38. Hou expressly states, "...one objective of the DBA (dynamic bandwidth allocation) scheme of the present invention is to provide a system which does not require involvement from the subscriber units...the subscriber units do not need to send a signal to the central controller to request bandwidth or report the subscriber unit buffer size." (see col. 8, lines 29-38.).

Thus, in strong direct contrast to the claimed feature, the Hou system does not receive a request from the receiver station (subscriber station), but instead lacks any involvement from the

subscriber station to request bandwidth by relying instead solely on the central controller to allocate bandwidth. Therefore, since Hou lacks any involvement from the receiver station, it is clear that Hou does not disclose the recited feature of receiving requests for dynamic bandwidth allocation from the peripheral stations making the claimed invention patentably distinct and non-obvious from the cited reference.

**Claims 18-27, 30-31, and 35-36 are not made obvious by Ghaibeh**

Claims 18-27, 30-31, and 35-36 were rejected under § 103(a) in view of Ghaibeh. Applicants strongly contend that Ghaibeh fails to disclose the features recited in these claims as amended such as of preallocating a certain portion of total bandwidth in a static modality to at least a portion of the plurality of Peripheral Stations, said preallocating representing an assignment of fixed capacity to said at least a portion, on the basis of information about active connections without considering status of queues in the plurality of Peripheral Stations.

Ghaibeh clearly does not disclose this patentably distinct feature of preallocating a certain portion of total bandwidth in a static modality to at least a portion of the plurality of Peripheral Stations, said preallocating representing an assignment of fixed capacity to said at least a portion, on the basis of information about active connections without considering status of

queues in the plurality of Peripheral Stations. In direct contrast to the recited feature, Ghaibeh solely discloses a data communications protocol using a dynamic bandwidth allocation scheme incorporating a "permit" message relayed from the headend to the downstream network units. (see Abstract). Throughout the disclosure, Ghaibeh solely mentions using a dynamic allocation scheme and makes no mention whatsoever of a allocation scheme using a static modality on the basis of active connections as recited. Specifically, Ghaibeh states that "...it would be desirable to provide a network architecture and data communications protocol that will dynamically and adaptively allocate network bandwidth to a number of communication nodes sharing a common point-to-multipoint communication network...upstream data transmission is provided on a 'permit' basis controlled by the headend based on monitoring ATM cell queue sizes at respective NUs (network units)." (see col. 1, lines 61-64; col. 2, lines 29-31).

Further, Ghaibeh states that "...a general object of the invention is to provide a data transmission protocol that supports two-way (asymmetrical) transport...by providing real-time allocation of multi-priority upstream ATM traffic types, depending upon actual demand and service priority." (see col. 3, lines 8-14).

Therefore, as expressly stated by Ghaibeh, his system solely allocates bandwidth on a dynamic basis in real-time and must monitor the queue size at the network unit (receiver station) to

determine the dynamic bandwidth allocation and permit usage which is in direct contrast to the recited feature. As recited, the present invention preallocates a certain portion of total bandwidth in a static modality to at least a portion of the plurality of Peripheral Stations, said preallocating representing an assignment of fixed capacity to said at least a portion, without considering status of queues in the plurality of Peripheral Stations, and directly in contrast Ghaibeh discloses a solely dynamic allocation system that must monitor the status of queues at the respective receiver stations to allocate dynamic bandwidth (send out 'permit' requests). Applicants strongly contend that allocating bandwidth in real-time in response to dynamic demand as disclosed by Ghaibeh is significantly different from preallocating bandwidth in a static modality to at least a portion, said preallocating representing an assignment of fixed capacity to said at least a portion, as recited.

Therefore, since Ghaibeh must monitor the status of queues of the respective receiver stations and allocates bandwidth in real-time in response to dynamic demand in direct contrast to the recited feature, it is clear that Ghaibeh does not disclose the recited feature making the claimed invention patentably distinct and non-obvious from the cited reference.

**Claims 28-29, and 32-34 are not made obvious by Ghaibeh and**

**Narasimhan**

Claims 28-29, and 32-34 were rejected under § 103(a) in view of Ghaibeh and Narasimhan. Applicants strongly contend that Ghaibeh and Narasimhan, either alone or in combination, fail to disclose the features recited in these claims as amended such as of preallocating a certain portion of total bandwidth in a static modality to at least a portion of the plurality of Peripheral Stations, said preallocating representing an assignment of fixed capacity to said at least a portion, on the basis of information about active connections without considering status of queues in the plurality of Peripheral Stations.

As contended above, Ghaibeh clearly does not disclose this patentably distinct feature as in direct contrast to the recited feature, Ghaibeh solely discloses a data communications protocol using a dynamic (real-time) bandwidth allocation scheme incorporating a "permit" message relayed from the headend to the downstream network units. (see Abstract). Further, Narasimhan solely discloses a retransmission scheme for ATM systems and makes no mention of the recited feature throughout the disclosure.

Therefore, since Ghaibeh must monitor the status of queues of the respective receiver stations and allocates bandwidth in real-time in response to dynamic demand in direct contrast to the recited feature and Narasimhan makes no mention of the recited feature, it is clear that Ghaibeh and Narasimhan, either alone or

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in combination, do not disclose the recited feature making the claimed invention patentably distinct and non-obvious from the cited references.

Conclusion

In view of the amendments and remarks submitted above, it is respectfully submitted that all of the remaining claims are allowable and a Notice of Allowance is earnestly solicited.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayments to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

The Examiner is invited to contact the undersigned at (703) 205-8000 to discuss the application.

Respectfully submitted,

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